

MMA Electrodes C-Mn and low-alloy steels

Low hydrogen electrode designed primarily for the vertical-down welding of circumferential pipe butt joints. The potential risk of hydrogen associated defects is minimised particularly in relation to higher strength line pipe. In addition the low hydrogen weld metal results in reduced preheat levels in comparison with cellulosic electrodes. Good impact toughness to -50°C and good radiographic quality. Efficiency 120%.

Classification	
AWS	A5.5: E 8018 G
EN	499: E 46 4 B 35 H5
EN ISO	2560-A: E 46 4 B 35 H5

Approvals	Grades
TÜV	

see Appendix, Classification Society Approvals, for details pag. 521

Analysis of all-weld metal (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	V	N	Cu
0.07	1.50	0.50	≤ 0.020	≤ 0.015	-	-	-	-	-	-	-

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO - V (J) -50°C	Hardness
As Welded	≥ 460	560-650	≥ 27	≥ 45	-

Materials

API 5LX 50-70; L210-L415

Storage and redrying

Keep dry and avoid condensation.

HD ≤ 5: Re-dry at 280-300 °C for 1 hour, 5 times max.

Current condition and welding position

DC+



Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
4,0	350	160-210	49,8	30,0
4,5	350	200-240	62,3	43,9